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No. 07-

IN THE
SUPREME COURT OF THE UNITED STATES

LUIS D. SANCHEZ, SPECIALIST,
UNITED STATES ARMY,
Petitioner,

v.

UNITED STATES OF AMERICA,
Respondent.

On Petition for Writ of Certiorari To the United States Court of Appeals for the Armed Forces

PETITION FOR WRIT OF CERTIORARI

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QUESTION PRESENTED

Whether the standard of appellate review for the admission of expert testimony at a criminal trial should be *de novo* in light of: (1) empirical studies suggesting that trial judges do not have the background to adequately rule on complicated issues of expert testimony; (2) the highly controversial and evolving nature of expert testimony commonly admitted at criminal proceedings; (3) the persuasiveness of expert testimony upon a lay juror; (4) the unequal access to "shaky but admissible" expert testimony for a criminal defendant; and (5) the unique concerns of a criminal trial arising from the Due Process Clause of the Fifth Amendment.

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IN THE

SUPREME COURT OF THE UNITED STATES

LUIS D. SANCHEZ, SPECIALIST,
United States Army, Petitioner,

v.

THE UNITED STATES OF AMERICA, Respondent

On Petition for a Writ of Certiorari To the United States Court of Appeals for the Armed Forces

PETITION FOR WRIT OF CERTIORARI

The petitioner, Luis D. Sanchez, respectfully prays that a writ of certiorari issue to review the decision of the United States Court of Appeals for the Armed Forces in this case.

OPINIONS BELOW

The opinion of the United States Court of Appeals for the Armed Forces is reported at 65 M.J. 145 (C.A.A.F. 2007). (Appendix A.) The decision of the United States Army Court of Criminal Appeals is unpublished. (Appendix B.)

JURISDICTION

The judgment for the Court of Appeals for the Armed Forces was entered on June 21, 2007. The jurisdiction of this Court is invoked pursuant to 28 U.S.C. § 1259(3), the United States Court of Appeals for the Armed Forces having reviewed this case pursuant to Uniform Code of Military Justice (U.C.M.J.) Article 67(a)(3), 10 U.S.C. § 867(a)(3).

CONSTITUTIONAL PROVISION INVOLVED

The Fifth Amendment to the United States Constitution provides, in relevant part, that:

> No person . . . shall be compelled in any criminal case to be a witness against himself nor be deprived of life, liberty, or property, without due process of law.

EVIDENTIARY RULE INVOLVED

This case also involves Manual For Courts-Martial, United States, Military Rule of Evidence (Mil. R. Evid.) 702 (2000). (Mil. R. of Evid. 702 differs in no significant way from its counterpart in federal civilian trials—Federal Rule of Evidence (Fed. R. Evid.) 702).

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact at issue, a witness qualified as an expert by

> knowledge, skill, expertise, training, or education may testify thereto in the form of an opinion or otherwise if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

STATEMENT OF THE CASE

Procedural History

On June 21, August 24, and October 15-17, 2001, Specialist Sanchez (petitioner) was tried at Fort Sam Houston, Texas, by a general court-martial composed of officer and enlisted members. Contrary to his pleas, petitioner was convicted of rape of a child and forcible sodomy, in violation of Articles 120 and 125, U.C.M.J.; 10 U.S.C. §§ 920 and 925 (2000). The convening authority approved the adjudged sentence of reduction to Private (E-1), total forfeitures, confinement for nine years, and a dishonorable discharge.

On April 12, 2006, the Army Court of Criminal Appeals summarily affirmed the findings of guilty and the sentence. On September 18, 2006, the United States Court of Appeals for the Armed Forces (C.A.A.F.) granted review on the following issue:

WHETHER THE MILITARY JUDGE ABUSED HER DISCRETION BY ADMITTING EXPERT TESTIMONY REGARDING THE ALLEGED VICTIM'S MEDICAL EXAMINATION OVER DEFENSE OBJECTION.

The C.A.A.F. rendered its opinion on June 21, 2007, affirming the decision of the Army Court of Criminal Appeals. (Appendix A.) The majority held that the military judge did not abuse her discretion in admitting the testimony of the government expert in child sexual abuse, Dr. Kellogg. At trial, Dr. Kellog opined that the victim had symptoms/traits that were "concerning for abuse." *United States v. Sanchez*, 65 M.J. at 151. The majority concluded that Dr. Kellogg's proffered testimony had a sufficient factual basis, was reliable under Mil R. Evid. 702, and, therefore, the military judge's findings were not "manifestly erroneous." *Id.* at 153. Chief Judge Effron dissented, finding that there was no independent scientific support for Dr. Kellogg's testimony and that the military judge's reliance on the expert's clinical experience was an abuse of discretion when the expert "failed to test her observations through a reliable scientific method." *Id.* at 158-59.

Statement of Facts

Petitioner was charged with rape and forcible sodomy against his eight-year-old stepdaughter. At trial, the government sought to introduce the testimony of Dr. Nancy Kellogg, a physician at the

Alamo Children's Advocacy Center. Trial defense counsel opposed admission of Dr. Kellogg's testimony, contesting the reliability of her methodology under Mil. R. Evid. 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). At a *Daubert* hearing convened pursuant to Article 39(a), U.C.M.J., 10 U.S.C.§ 839(a) (2000), Dr. Kellogg explained she would testify about three physical anogenital findings that led her to conclude JA, the eight-year-old stepdaughter, was "concerning" for sexual abuse: (1) hymenal measurement; (2) anal dilation; and (3) vaginal white blood cell count.

Trial defense counsel challenged the reliability of Dr. Kellogg's assessment that those physical findings are "concerning" for abuse. In particular, the trial defense counsel argued the military judge should not accept Dr. Kellogg's opinion into evidence because Dr. Kellogg's standards lacked general scientific acceptance, there was no known rate of error for her conclusions, and her methodology lacked direct peer review and publication. The defense argued that Dr. Kellogg's clinical experience was not a sufficient basis to offer expert testimony unless the methodology behind her expert testimony was also tested, which it was not.

The military judge granted the prosecution's motion to admit Dr. Kellogg's testimony, concluding that her methodology was reliable under Mil. R. Evid. 702 and *Daubert*. (Appendix C.) The military judge determined that Dr. Kellogg's findings were based on sufficient facts or data under Mil. R. Evid.

702 because "[e]ven if there is a disagreement on matters within this area of expertise, Dr. Kellogg herself still has a basis of her own 6,000 examinations to fall back upon . . . ." (Appendix C.) With respect to the *Daubert* factors, the military judge stated that: (1) although Dr. Kellogg's methods were not universally accepted, lack of general acceptance is not a bar to admissibility; (2) Dr. Kellogg's factors "have been subject to peer review and publication; apparently, hotly so. But that is still peer review and publication"; and (3) "while there can be no known error rate because of the lack of a normative population, that at least to some extent the use of measurements and more than one measurement is accepted in that field." (Appendix C.)

REASONS FOR GRANTING THE WRIT

Summary of Argument

I. The standard of appellate review for the admission of expert testimony in criminal cases should be less deferential than the "manifestly erroneous" standard applied by the C.A.A.F. given: (1) empirical studies finding that trial judges do not have the background to adequately rule on complicated issues of expert testimony and do not understand how to apply the four *Daubert* factors; (2) the highly controversial and evolving nature of expert testimony admitted at criminal proceedings; (3) the persuasiveness of expert testimony upon a lay juror; (4) the unequal access to "shaky but admissible" expert testimony for a criminal defendant; and (5) the unique concerns for a criminal trial arising from the Due Process Clause of the Fifth Amendment.

II. If the C.A.A.F. had applied a *de novo* standard of appellate review in petitioner's case, the expert testimony admitted at trial would have been excluded because it was based largely on the expert's own unverified and unreliable clinical experience which: (1) had not been independently tested; (2) was not subjected to peer review; (3) had no known rate of error; and (4) was not generally accepted in the scientific community.

Introduction

Petitioner's case allows this Court to refine the appropriate standard of appellate review for the admission of expert testimony in light of the constitutional concerns provided to a criminal defendant. This Court has granted federal judges "broad latitude when [he or she] decides how to determine [the] reliability" of expert testimony at trial. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 142 (1999) (citing *General Electric Co. v. Joiner*, 522 U.S. 136, 143 (1997)); *see generally Daubert,* 509 U.S. at 587. Additionally, this Court held that the appropriate standard of review for the admission of such evidence is "abuse of discretion" under Fed. R. Evid. 702. *Joiner*, 522 U.S. at 139. However, such a deferential standard of appellate review is predicated upon three presumptions: (1) the assurance that the trial judiciary has the appropriate background to understand the proffered expert testimony; (2) that the trial judge's decision to admit or exclude evidence is not distorted by bad or unreliable scientific evidence; and (3) that both parties have equal access to expert testimony to effectively challenge "shaky but admissible evidence." If those presumptions are proven unwarranted, then appellate courts should not give deference to the trial judge.

Because scientific and non-scientific expert testimony in criminal jurisprudence is commonly used to demonstrate causation (e.g., symptoms are

concerning for abuse), erroneous rulings on the admissibility of expert testimony provide the lynchpin for the conviction of a criminal defendant. The Fifth Amendment was designed as a safeguard against such evils and effective appellate review is necessary to prevent trial judges from exceeding the scope of their discretion, assuming the functions of the jury, and, ultimately, denying a criminal defendant the right to a fair trial. *See generally Degraffenreid v. McKellar*, 494 U.S. 1071, 1073 (1990)(internal citations omitted)("the forfeiture of the lives, liberties or property of people accused of crime can only follow if procedural safeguards of due process have been obeyed").

Petitioner's case is a prime example of the consequence when an appellate court gives substantial, albeit undeserved, deference to a trial judge's decision to admit expert testimony. In this case, even though the military judge recited the *Daubert* factors, she did not have the necessary understanding of the underlying science or its application to the facts of petitioner's case. As a result, the military judge allowed Dr. Kellogg to provide expert testimony based upon her own clinical experience which had not been subject to adequate peer review and had not otherwise been sufficiently tested.

Application of Federal Rule of Evidence 702 and Military Rule of Evidence 702

In *Daubert*, this Court announced that under Fed. R. Evid. 702, the trial judge has a

"gatekeeping" responsibility for the admissibility of scientific testimony. 509 U.S. at 579. This Court identified four factors a judge may use for assessing the reliability of expert testimony: (1) whether a theory or technique can be or has been tested; (2) whether the proffered evidence has been subjected to peer review and publication; (3) the known or potential rate of error; and (4) general acceptance in the scientific field. *Id.* at 593-94.

Four years later, this Court addressed the appropriate standard of review for appellate review under Fed. R. Evid. 702, holding that abuse of discretion is the appropriate standard of appellate review for a trial court's decision to admit or exclude expert testimony. *Joiner*, 522 U.S. at 143 (citing *Spring Co. v. Edgar*, 99 U.S. 645, 658 (1879)("appellate court will not reverse in such a case, unless the ruling is manifestly erroneous")). This Court, however, did caution that "nothing in either *Daubert* or the Fed. R. of Evid. requires a district court to admit opinion evidence which is connected to existing data by the *ipse dixit* of the expert." *Joiner*, 522 U.S. at 146. Therefore, a trial judge should not admit the expert testimony if there is an "analytical gap between the data and the opinion proffered." *Id.*

Finally, in *Kumho Tire Co. v. Carmichael*, this Court extended the reach of *Daubert* to all types of expertise. 526 U.S. at 148. This Court stressed that inquiry under Fed. R. Evid. 702 is a "flexible" one and the factors identified in *Daubert* "do not constitute a definitive checklist or test.'" *Id.* at 150.

The concurring opinion from Justice Scalia, however, highlighted the continuing concern over the admissibility of unreliable expert testimony:

> I join the opinion of the Court, which makes clear that the discretion it endorses - trial-court discretion in choosing the manner of testing expert reliability - is not discretion to abandon the gatekeeping function. I think it worth adding that it is not discretion to perform the function inadequately. Rather, it is discretion to choose among *reasonable* means of excluding expertise that is *fausse* and science that is junky. Though, as the Court makes clear today, the *Daubert* factors are not holy writ, in a particular case the failure to apply one or another of them may be unreasonable, and hence an abuse of discretion.

Id. at 158-9. Therefore, while this Court previously delineated a preference for the admissibility of expert testimony at trial and a deferential standard of appellate review, this Court was equally adamant that "all scientific testimony or evidence admitted [must] not only [be] relevant, but reliable." *Id.* at 147 (citing *Daubert*, 509 U.S. at 589 (footnote omitted)).

In *United States v. Billings*, the C.A.A.F. reaffirmed the continuing application of Mil. R. Evid. 702 after this Court's decisions in *Daubert*,

Joiner, and *Kumho.* 61 M.J. 163, 166 (C.A.A.F 2005). Additionally, the C.A.A.F. adopted the four factors identified in *Daubert* for evaluating reliability of expert testimony at a court-martial. *Id.* at 168 (citing *Daubert,* 509 U.S. at 593-4).

Comparison of Criminal and Civil Trials

Petitioner does not challenge the notion that Mil. R. Evid. 702 applies equally in both criminal and civil proceedings. Unique to a criminal trial, however, the systemic responsibility for the end result of a criminal prosecution lies in the Fifth Amendment, the Sixth Amendment, and the Due Process Clause. These Amendments operate together within the trial phase of a criminal proceeding to ensure a fair trial and a just result.

Previously, this Court highlighted the distinguishing characteristics between a criminal versus a civil proceeding in relation to the different burdens of proof. *Anderson v. Liberty Lobby*, 477 U.S. 242, 252-53 (1986). This Court has also addressed the constitutional admissibility of expert testimony within the context of a criminal trial. *United States v. Scheffer*, 523 U.S. 303, 311 n.7 (1998)(internal citations omitted)("Nothing in *Daubert* foreclosed, as a constitutional matter, per se exclusionary rules for certain types of expert or scientific evidence"); *see also Michelson v. United States*, 335 U.S. 469, 475-76 (1948)(propensity evidence has been historically rejected because "it is said to weigh too much with the jury and to so over persuade them as to prejudice one with a bad

general record and deny him a fair opportunity to defend against a particular charge"). Finally, at least one Supreme Court justice has expressed a particular concern about the reliability of expert testimony at criminal proceedings because of the higher burden of proof on the government and the particularized concerns of the Due Process Clause. *Barefoot v. Estelle*, 463 U.S. 880, 916 (1983) (Blackmun, J., dissenting)("when a person's life is at stake . . . a requirement of greater reliability should prevail"). Therefore, the standard for appellate review of the admission of expert testimony should be recalibrated in light of a higher standard of proof in a criminal proceeding and a criminal defendant's constitutional right to a fair trial.

Complexity of Scientific Information in a Criminal Jurisdiction

In addition to the constitutional concerns expressed by Justice Blackmun, criminal proceedings have been a fertile ground for the use of contested and increasingly complex scientific and non-scientific expert evidence. *See United States v. Lewis*, 220 F. Supp. 2d 548, 554 (S.D. W. Va. 2002)(assertions that handwriting identifications were not admissible absent evidence of testability and a rate of error); *Williamson v. Reynolds*, 904 F. Supp. 1529, 1558 (E.D. Okl. 1995)(expert hair comparison testimony did not meet the reliability requirements under *Daubert*); *Howard v. State*, 697 So. 2d 415, 429 (Miss. 1997)(Mississippi Supreme Court excluded bite-mark comparison evidence as not "scientifically accredited at this time"). As this

Court noted in *Joiner*, expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. 522 U.S. at 149 (Breyer, J., concurring) (citing Judicial Conference of the United States, Report of the Federal Courts Study Committee 97 (Apr. 2, 1990) ("Economic, statistical, technological, and natural and social scientific data are becoming increasingly important in both routine and complex litigation)).

This Court's concern over the persuasive nature of expert testimony has been validated by sociological studies on the effect of scientific data on a layperson. Wendy E. Wagner, *Congress, Science, and Environmental Policy*, 1999 U. Ill. L. Rev. 181, 225 n.157 (1999) (*quoting* Kristina Petkova & Pepka Boyadjieva, *The Image of the Scientist and Its Function*, 3 Pub. Understand. Sci. 215, 215, 222 (1994)) (reporting that "many leading sociologists of science have pointed out that the scientist is portrayed by society as an almost mythological figure" and concluding, based on an empirical study, that "the image of the scientist has been described in an elevated way with elements of idealization").

Furthermore, as numerous courts have noted, it is nearly impossible for courts to keep up with the ever-changing and dynamic nature of scientific research. *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996))("Law lags science; it does not lead it"); *see also McClain v. Metabolife Int'l, Inc.*, 401 F.3d 1233, 1247 (11th Cir. 2005)(internal citations omitted)(quoting Judge Posner, "the courtroom is not the place for scientific guesswork,

even of the inspired sort. Law lags science; it does not lead it."); *Wyeth, Inc. v. Gottlieb*, 930 So. 2d 635, 642 (Fla. Dist. Ct. App. 2006)(citing the difficulties for a plaintiff in introducing a untested medical monitoring program under *Daubert*). Therefore, a substantial risk exists that expert testimony admitted at the time of trial is shown later to be invalid or unreliable.[1]

This volatile cocktail of constantly evolving scientific, technical, and medical evidence and the inherent persuasiveness of such testimony have been demonstrated through an examination of the admissibility of DNA evidence. *State v. Harris*, 866 S.W.2d 583, 586 (Tenn. Crim. App. 1992)(holding DNA evidence admissible due to its inherent reliability); *United States v. Jakobetz*, 747 F. Supp. 250, 255 (D. Vt. 1990)(DNA evidence carries an "aura of mystic infallibility"); *Dubose v. State*, 662 So. 2d 1189, 1199 (Ala. 1995). Recently, the Cardozo Law School's Innocence Project examined sixty-two criminal cases where the defendants were later exonerated on appeal, in part due to advancements in DNA evidence, to ascertain what factors contributed to these erroneous convictions. B. Scheck et al., *Actual Innocence: Five Days to Execution and Other Dispatches from the Wrongly*

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[1] Congress responded to these concerns by enacting the Justice For All Act, Pub. L. No. 108-405 (2004). The related Senate report stated, "recent exonerations of inmates awaiting capital punishment or serving lengthy prison sentences have cast doubt on the reliability of the criminal justice system." S. Rep. No. 107-315, at 7 (2002).

Convicted (New York: Doubleday, 2000): at 246. That study found that a third of these cases involved "tainted or fraudulent science" which had been admitted at trial. *Id.*

More significant to petitioner's case, the admissibility of expert testimony on causation in child abuse cases has been the subject of judicial scrutiny. "[I]n many [cases of child abuse] the only proof available is circumstantial evidence since abusive actions usually occur within the privacy of the home, the child is either intimidated or too young to testify, and the parents tend to protect each other." *In re Sarah C.*, 626 N.W.2d 637, 643 (Neb. Ct. App. 2001)(quotations omitted). For example, in *Lee v. Florida*, a Florida appellate court held the defense counsel to be ineffective, in part, for failing to properly attack the "outdated medical opinion" that a change in the hymenal rim is indicative of sexual abuse. 899 So. 2d 348, 353 (Fla. Dist. Ct. App. 2005); *see also Salinas v. Texas*, 166 S.W.3d 368, 370 (Tex. Crim. App. 2d 2005)(the trial court erroneously admitted expert testimony that the alleged victim had a physical examination that was consistent with "her history").

Empirical Data Demonstrating a Lack of Understanding of Scientific Issues

Given the complex nature of expert testimony proffered at trial, the ability of a trial court to admit or exclude evidence under the properly applied standard rests on the trial judge's ability to understand the proffered evidence. As Chief Justice

Rehnquist remarked, "I defer to no one in my confidence in federal judges; but I am at a loss to know what is meant when it is said that the scientific status of a theory depends on its 'falsifiability,' and I suppose some of them will be too." *Daubert*, 509 U.S. at 600 (Rehnquist, C.J., dissenting). In the nearly fifteen years since *Daubert*, the evidence has validated Chief Justice Rehnquist's initial apprehension.

In general, laypersons have difficulty employing methodological reasoning to complex scientific problems. Neil Vidmar & Shari Seidman Diamond, *Juries and Expert Evidence: From the Nineteenth to the Twenty-First Century*, 66 Brook. L. Rev. 1121, 1136 (2001) (referencing the work of social psychologist Harold Kelley). If a layperson is:

> [i]ncapable of understanding problems such as statistical representativeness, confounded variables, and conditional probabilities, then he or she will not be able to grasp the reasoning behind an expert opinion, even if it is clearly explained and examined during direct and cross-examination of the expert witness.

Id. at 1136.

Similarly, the empirical studies available since this Court's opinion in *Daubert* demonstrate that the trial judiciary has faced similar problems concerning the complexity of expert testimony and

the application of the four factors identified in *Daubert*. In a 2001 study of state court judges, almost half of those questioned were not adequately prepared to deal with the range of scientific evidence proffered in their courtroom. Sophia I. Gatowski et al., *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a* Post-Daubert *World*, 25 Law & Hum. Behav. 433, 442 (2001)(in particular, only a small percentage of judges sufficiently understood the meaning and application of "falsifiability" and "rate or error"). A similar survey was conducted for Texas judges and the results were fundamentally the same. Overall, the study concluded that more than seventy percent of the Texas trial judiciary had limited experience with the scientific method. Cynthia Stevens Kent, *Daubert Readiness of Texas Judiciary: A Study of the Qualifications, Experience, and Capacity of the Members of the Texas Judiciary to Determine the Admissibility of Expert Testimony Under the Daubert, Kelly, Robinson, and Havner Tests*, 6 Tex. Wesleyan L. Rev. 1, 15 (1999). Significantly, even among the judges who reported some education in the scientific method, eighty-nine percent received that instruction over twenty years ago. *Id.* at 14.

Moreover, at least one study suggests that trial judge's have been less adept at analyzing the methodology behind scientific research because they are more concerned with the expert's credentials. Jennifer L. Groscup et al., *The Effects of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 Psychol. Pub. Pol'y. & L. 339, 357 (2002). This study also noted that judges

may be unable to determine what factors are important in assessing scientific reliability, particularly when research is the basis for the expert opinion. *Id.*

Disparate Access to Expert Witnesses and Disparate Application of Daubert for Criminal Defendants

This Court has previously held that criminal defendants have a due process right to expert assistance. *Ake v. Oklahoma*, 470 U.S. 68 (1985). "A criminal trial is fundamentally unfair if the State proceeds against an indigent defendant without making certain that he has access to the raw materials integral to the building of an effective defense." *Id.* at 77. This Court established a three-part test, balancing: (1) the private interests that the state's actions would affect, (2) the state's interest that would be affected by providing the safeguard, and (3) the probable value of the additional or substitute procedural safeguards sought, and the risk of an erroneous deprivation of the affected interest if those safeguards are not provided. *Id.*; *see also* 18 U.S.C. § 3006(A)(e) (2000)(The Criminal Justice Act provides for expert assistance for indigent defendants in federal trials).

Similarly, in the military both the defense and prosecution "shall have equal opportunity to obtain witnesses and other evidence." Article 46, U.C.M.J, 10 U.S.C. § 846 (2000). As it relates to access for expert witness assistance, the C.A.A.F. has held, "[t]he accused must show that a reasonable

probability exists 'both that an expert would be of assistance to the defense and that denial of expert assistance would result in a fundamentally unfair trial.'" *Bresnahan*, 62 M.J. 137, 143 (C.A.A.F. 2005)(internal citations omitted). To test the adequacy of this showing of necessity, "[t]he defense must show: (1) why the expert assistance is needed; (2) what the expert assistance would accomplish for the accused; and (3) why the defense counsel were unable to gather and present the evidence that the expert assistance would be able to develop." *Id.* (footnotes omitted) (internal citations omitted).

While *Ake* and *Bresnaham* provide funding for expert testimony for a criminal defendant, the standard for demonstrating "necessity" is at odds with the liberal thrust providing for the admissibility of expert testimony under Fed. R. Evid. 702. Therefore, the potential exists that a criminal defendant may satisfy the standard for the admission of "shaky but admissible" expert testimony under *Daubert*, while not fulfilling the "necessity" requirement under *Ake*. Moreover, the prosecution is not faced with such a burden in gaining access to expert witnesses and, therefore, may choose whatever expert best supports their position at trial. *See e.g. United States v. Warner*, 62 M.J. 114 (C.A.A.F. 2005)(reversible error for trial judge to rule that substitute expert was adequate in case where accused was charged with shaking his baby to death; C.A.A.F. held that government violated Article 46 when it assigned the leading expert in the area to itself and assigning an expert, with no apparent experience, to the defense team;

C.A.A.F. stated that the defense expert should have similar qualifications).

The tangible effect of the disparate access to experts of one's own choosing is the inability for the defense to effectively advocate the reliability of expert testimony to survive a *Daubert* challenge. In fact, at least one study demonstrates that prosecutors enjoy an inordinately high rate of success in fending off challenges to the reliability of expert testimony. D. Michael Risinger, *Navigating Expert Testimony: Are Criminal Standards of Certainty Being Left on the Dock*, 64 Alb. L. Rev. 99, 109 (2000). Defense challenges at trial to the reliability of expert testimony were unsuccessful ninety-two percent of the time and an extraordinary ninety-eight percent on appeal. *Id.* at 105-08. Equally concerning, defense proffers for the admissibility of expert testimony was successfully challenged by the prosecution at a much higher rate. *Id.* at 110 (the prosecution at trial successfully challenged defense proffers of expert testimony sixty-six percent of the time).

Application to Petitioner's Case

The facts of petitioner's case highlight the problematic nature of a deferential standard of appellant review for complex scientific evidence when the trial judge does not sufficiently understand the methodology behind the proffered testimony. In this case, the military judge superficially acknowledged the *Daubert* factors. She failed, however, to properly apply these factors or

employ adequate alternative factors to assess the reliability of Dr. Kellogg's methodology. *Sanchez*, 65 M.J. at 155 (Effron, J., dissenting).

Foremost, Dr. Kellogg's methodology for assessing physical findings of sexual abuse did not utilize the scientific method and hinged on her own clinical experience, which was neither independently tested nor generally accepted in the medical community. In fact, numerous courts have expressed concern about permitting clinical opinions to morph into expert medical opinions. *See e.g.*, *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194 (4th Cir. 2001); *Turner v. Iowa Fire Equipment Co.*, 229 F.3d 1202, 1207 (8th Cir. 2001)("A treating physician's expert opinion on causation is subject to the same standards of scientific reliability that govern the expert opinions") (internal citations omitted); *Casey v. Ohio Med. Prod.*, 877 F. Supp. 1380, 1385 (N. D. Cal. 1995)(case reports are generally not reliable evidence of causation). As Chief Judge Effron noted in his dissent:

> Dr. Kellogg did not record measurements, tabulate data, or otherwise conduct formal studies with her examination results. Although Dr. Kellogg examined approximately 2,000 children who were not referred for possible sexual abuse, she did not attempt to study them as a control group and record the findings. Further, Dr. Kellogg did not test her conclusion that the findings introduced into

> evidence were "concerning" for sexual abuse in a blind case study. That is, she did not compare examination results of abused versus non-abused children, nor did she research the prevalence of abused children who did not present physical evidence of abuse versus those who did.

Sanchez, 65 M.J. at 156.

Second, the scientific studies offered by the defense at the time of trial demonstrated there was no corroborating independent support for Dr. Kellogg's trial testimony. *See* John McCann et al., *Perianal Findings in Prepubertal Children Selected for Nonabuse: A Descriptive Study*, 13 Child Abuse & Neglect 179 (1989); Heger, Astrid, et al., *Evaluations of the Sexually Abused Child: A Medical Textbook and Photographic Atlas*, Second edition, Oxford University Press. (2000). Moreover, there was little support for the majority opinion's analysis that Dr. Kellogg's testimony is reliable based upon her "constellation of findings." *Sanchez*, 65 M.J. at 151. In fact, Dr. Kellogg's contention that more than one "suspicious" anogenital symptoms of sexual abuse raises the level of "concern" is in direct contradiction with the medical studies available at the time of trial. Joyce Adams, *Evolution of a Classification Scale: Medical Evaluation of Suspected Child Sexual Abuse*, Child Maltreatment, Feb. 2001, at 4. ("There are no data to support the theory that there is an increased likelihood of abuse

if these combinations are noted on the examination").

Lastly, Dr. Kellogg fashioned her testimony of physical symptoms "concerning" for abuse on the alleged victim's own account of what had occurred. As this Court noted, falsification, taking a hypothesis and attempting to falsify it, is the lynchpin of reliability. *Daubert*, 509 U.S. at 593. Instead, Dr. Kellogg based her opinion that there were physical findings "concerning" for abuse upon the assumption that the victim was telling the truth when she said she was sexually abused. As Chief Judge Effron commented in dissent, "the patient's consistent history, or account of abuse over time, to which Dr. Kellogg gave the greatest weight in making her assessment, is simply not scientific evidence. It is the victim's account of what occurred, and in this case, it was clinically unverifiable." *Sanchez*, 65 M.J. at 158. Consequently, Dr. Kellogg's expert testimony was simply not reliable.

Conclusion

Justice Cardozo once observed, "The work of a judge is in one sense enduring and in another ephemeral. . . . In the endless process of testing and retesting, there is a constant rejection of the dross and a constant retention of whatever is pure and sound and fine." B. Cardozo, *The Nature of the Judicial Process*, 178-79 (1921). Closer scrutiny of the admissibility of expert testimony appropriately addresses Justice Cardozo's concern and will prevent the courthouse door from being prematurely

shut on appeal for criminal defendants. Petitioner's case allows this Court to effectively remedy the problem by allowing for a less deferential standard of review when reviewing the admission of expert opinion on appeal from criminal appellants without disturbing the province of the jury or usurping the role of the trial judge.

CONCLUSION

WHEREFORE, petitioner respectfully requests that this petition for a writ of certiorari be granted.

Respectfully submitted,

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APPENDIX A

IN THE CASE OF
UNITED STATES, Appellee

V.

Luis D. SANCHEZ
Specialist
U.S. Army, Appellant

No. 06-0617
Crim. App. No. 20010943

UNITED STATES COURT OF APPEALS FOR THE ARMED FORCES

Argued January 27, 2007
Decided June 21, 2007

RYAN, J., delivered the opinion of the Court, in which BAKER, ERDMANN, and STUCKY, JJ., joined. EFFRON, C.J., filed a dissenting opinion

Military Judge: Debra Boudreau

Judge RYAN delivered the opinion of the Court.

In this case we are asked to decide whether the military judge abused her discretion when she denied the motion in limine to exclude testimony from an expert in child sexual abuse that was based in part on findings from a physical examination of the victim, findings which Appellant claims are unreliable. *See* Military Rule of Evi-

Evidence (M.R.E.) 702; *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999); *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 589, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993); *United States v. Billings*, 61 M.J. 163, 166 (C.A.A.F 2005). We conclude that the military judge's determination that the expert opinion had a sufficient factual basis and was reliable was not "'manifestly erroneous.'" *General Electric Co. v. Joiner*, 522 U.S. 136, 142, 118 S. Ct. 512, 139 L. Ed. 2d 508 (1997) (quoting *Spring Co. v. Edgar*, 99 U.S. 645, 658, 25 L. Ed. 487 (1879)). Therefore, we hold that the military judge did not abuse her discretion.

I. Background

A.

A general court-martial composed of officer and enlisted members convicted Appellant, contrary to his pleas, of rape and forcible sodomy of his eight-year-old stepdaughter, JA, in violation of Articles 120 and 125, Uniform Code of Military Justice (UCMJ), 10 U.S.C. §§ 920, 925 (2000). The sentence adjudged by the court-martial and approved by the convening authority included a dishonorable discharge, confinement for nine years, forfeiture of all pay and allowances, and reduction to the lowest enlisted grade. The Court of Criminal Appeals affirmed. *United States v. Sanchez*, No. ARMY 20010943 (A. Ct. Crim. App. Apr. 12, 2006) (unpublished).

We granted review of the following issue:

> WHETHER THE MILITARY JUDGE ABUSED HER DISCRETION BY ADMITTING EXPERT TESTIMONY REGARDING

THE ALLEGED VICTIM'S MEDICAL EXAMINATION OVER DEFENSE OBJECTION.

B.

JA, Appellant's eight-year-old stepdaughter, complained to her mother that Appellant sexually molested her over a period of more than two years. She presented details to her mother and to medical professionals regarding the instances of rape and forcible oral and anal sodomy of which Appellant was convicted.

In early January 2001, a few days after the last act of forcible anal sodomy, Ms. Lori Long, a forensic examiner and sexual assault nurse examiner at the Chrisus Santa Rosa Children's Hospital, examined JA. Ms. Long concluded that JA's vagina was abnormal, "concerning"[1] for abuse, and consistent with the history of sexual abuse she took from JA.

At the end of January 2001, Dr. Nancy Kellogg, the Medical Director of the Alamo Children's Advocacy Center, reviewed Ms. Long's conclusions and the patient history taken from JA by Ms. Long, interviewed JA, and conducted her own physical examination and medical evaluation of JA.

At trial, Appellant moved in limine to exclude the testimony of Dr. Kellogg, who was an expert witness for the prosecution, under M.R.E. 702 and *Daubert*. The defense accepted Dr. Kellogg as an expert in child sexual abuse and did not argue that expert testimony on child sexual abuse was irrelevant to the facts at issue in the

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[1] "Concerning" is a medical term for evidence that is consistent with possible sexual abuse.

case.[2] Instead, the defense argued that the expert's testimony was not the product of reliable methodology. *Id.*

The military judge conducted an Article 39(a), UCMJ, 10 U.S.C. § 839(a) (2000) hearing, to assess the reliability of this testimony. At the hearing, Dr. Kellogg explained the methodology she used in arriving at her opinion that JA was concerning for sexual abuse. Dr. Kellogg testified that she had conducted a physical examination of JA, taken fluid samples, conducted laboratory tests on those samples, reviewed JA's medical history, consulted with a professional colleague, and spoken with JA, who made certain comments about the sexual abuse that implicated Appellant. Dr. Kellogg testified that it is standard practice in her field to look at all of these factors together: "the diagnosis in medicine is made on the basis of a constellation of findings."

Dr. Kellogg explained why, using this methodology, she concluded that JA was concerning for sexual abuse. One of the most important factors was the consistent patient history. Relevant to the instant appeal are three specific medical findings from Dr. Kellogg's physical examination of JA that she considered: (1) a thickened hymen; (2) a high vaginal white blood cell count; and (3) anal dilation. Dr. Kellogg elaborated on the significance

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[2] Dr. Kellogg was a board-certified pediatric physician with thirteen years of experience focusing on child sexual abuse. She was a full professor in the pediatrics department of the University of Texas Health Science Center in San Antonio, Texas. She was the Director of the Alamo Children's Advocacy Center, where she had examined more than 6,000 children in possible sexual abuse cases. She had published twenty articles on child sexual abuse in scholarly and professional journals and been elected to the Ray Helfer Society, which is composed of the 100 physicians in the world considered to be experts by their peers in the field of child sexual abuse.

of each of these findings as it related to her conclusion that JA was concerning for sexual abuse.

Dr. Kellogg testified that the hymenal tissue in a prepubertal child should be thin and sheet-like, not thickened. JA's hymen had focal thickening. Moreover, the vaginal swabs revealed that JA had numerous white blood cells inside of her vagina.

These findings were concerning for sexual abuse because while the hymen does thicken over time due to estrogen as the child matures and sexual development occurs, focal thickening of the sort observed in JA, who was only eight, is not normal and is usually the result of trauma. Trauma includes both irritation and penetration, which are consistent with sexual abuse. Further, in light of JA's prepubertal state of maturity, a high white blood cell count was unusual. It could be caused by either an infection or irritation. JA did not have an infection. A hymen that was torn or attenuated could account for the presence of white blood cells because the protective shield is less effective in shielding the vagina from bacteria. JA's hymen did not cover her vaginal opening. The medical findings and patient history were the basis of Dr. Kellogg's medical assessment that JA's vagina was concerning for sexual abuse.

Dr. Kellogg next described her examination of JA's anus while JA was in the knee/chest position. There was no stool, and both the external and internal sphincters immediately dilated. Dr. Kellogg acknowledged that there were certain other circumstances where anal dilation might be considered normal. But because none of those circumstances existed, the anal dilation was concerning for sexual abuse. Dr. Kellogg admitted that reliance on anal dilation findings to support a conclusion of sexual abuse is relatively controversial in her field.

Dr. Kellogg further explained that her medical findings were congruent with both the patient history that Dr. Kellogg had reviewed and JA's statements during her examination. A consistent patient history is one of the strongest indicators of sexual abuse.

Dr. Kellogg admitted that no formal studies addressed the error rates for the medical findings she used as part of the basis for her conclusion that JA was concerning for sexual abuse. She was unaware of any studies that compare "normal with abnormal, sexually abused kids" and that purported to study normal, nonabused children. She explained that she believed that it would be impossible to conduct such a study, given the nature of child sexual abuse, which made her doubtful as to the validity of a "normal" nonabused control group.

During the Article 39(a) UCMJ, session, defense counsel, using studies and journal articles written by other experts in the field of child sexual abuse, vigorously cross-examined Dr. Kellogg on her findings. Dr. Kellogg was familiar with the studies cited by defense counsel and had coauthored articles with some of the individuals cited. Dr. Kellogg explained, during both direct and cross-examinations, why she disagreed with the methodology in some of the studies. She acknowledged that people in her field give different weight, or no weight, to certain anogenital findings. She also explained why a prudent doctor would take into account the "constellation of findings" in making a determination, rather than subscribe to a single diagnostic rubric.

In response to the military judge's question whether other experts in the field would rely on the same findings that Dr. Kellogg had used to evaluate whether a child had been the victim of sexual abuse, Dr. Kellogg responded that she could not speak for every other expert

in the field. But the colleague to whom she had shown the file agreed with her findings in this case. Dr. Kellogg also stated that while there is not one universally accepted methodology for relating medical findings to child sexual abuse, there are recognized standards in the medical profession that are relevant to determining if there is sexual abuse.

The military judge stated that Dr. Kellogg's testimony was relevant and admissible because "the members . . . will want to know whether there were any physical manifestations" of the alleged sexual abuse. The military judge opined that Dr. Kellogg's testimony would help the members understand the medical evidence including the physical examination. The military judge concluded that Dr. Kellogg possessed specialized medical knowledge of and experience with the physical manifestations of child sexual abuse, and that she had done specialized work in identifying physical manifestations that had been mistaken for sexual abuse. The military judge further found that Dr. Kellogg's testimony had sufficient factual basis because she had personally examined JA, had conducted over 6,000 similar examinations, and was very familiar with the work of other experts in the field.

Specifically addressing the methodology applied by Dr. Kellogg in arriving at her opinion in this case, the military judge ruled that it was reliable. The military judge recognized that there is disagreement as to the meaning to be ascribed to any one measurement or factor between experts in the field, but stated that *Daubert* does not require general acceptance. The military judge found that the conclusions drawn from anogenital findings relied upon by Dr. Kellogg had been subject to "peer review and publication; apparently hotly so." She accepted that there could be no known error rate because of the lack of a normative population, but nonetheless

found that at least to some extent, the use of anogenital measurements is accepted by experts in the field, and that the "meaning to be given to the specific measurement" goes to the weight of the opinion rather than to its admissibility. In light of these conclusions, and after conducting a M.R.E. 403 balancing test, the military judge permitted Dr. Kellogg to testify on the merits.

Before the panel, Dr. Kellogg presented her medical findings, illustrated her points by referring to pictures and exhibits, and opined that her findings were concerning for child sexual abuse. She was subjected to vigorous cross-examination by the defense counsel. JA also testified at trial. The panel convicted Appellant of the charged offenses.

The lower court summarily affirmed the approved findings and sentence in a per curiam opinion.

II. Discussion

A.

This Court reviews a military judge's decision to admit or exclude expert testimony over defense objection for an abuse of discretion. *Billings*, 61 M.J. at 166; *see also Joiner*, 522 U.S. at 139. "[W]hen judicial action is taken in a discretionary matter, such action cannot be set aside by a reviewing court unless it has a definite and firm conviction that the court below committed a clear error of judgment in the conclusion it reached upon a weighing of the relevant factors." *United States v. Houser*, 36 M.J. 392, 397 (C.M.A. 1993) (citation omitted). Furthermore, "the abuse of discretion standard of review recognizes that a judge has a range of choices and will not be reversed so long as the decision remains within that range." *United States v. Gore*, 60 M.J. 178, 187 (C.A.A.F. 2004) (citing *United States v. Wallace*, 296

U.S. App. D.C. 93, 964 F.2d 1214, 1217 n.3 (D.C. Cir. 1992)). As long as a military judge properly follows the appropriate legal framework, we will not overturn a ruling for an abuse of discretion unless it was "'manifestly erroneous.'" *United States v. Griffin*, 50 M.J. 278, 284 (C.A.A.F. 1999) (quoting *Joiner*, 522 U.S. at 142). This standard "applies as much to the trial court's decisions about how to determine reliability as to its ultimate conclusion." *Kumho Tire Co.*, 526 U.S. at 152.

B.

M.R.E. 702 dictates the admissibility of expert testimony. As relevant to this case, M.R.E. 702 permits expert testimony in the "form of an opinion or otherwise" only if the testimony: (1) is "based upon sufficient facts or data," (2) is "the product of reliable principles and methods," and (3) the principles and methods have been "applied . . . reliably to the facts of the case." Interpreting the analogous Fed. R. Evid. 702 in *Daubert*, the Supreme Court both rejected the requirement that a scientific theory be "generally accepted" in the scientific community and made clear that the trial court has a "gatekeeping" role. 509 U.S. at 589.

As gatekeeper, the trial court judge is tasked with ensuring that an expert's testimony both rests on a reliable foundation and is relevant. *Id.* at 597; *Kumho Tire Co.*, 526 U.S. at 141. This Court also recognizes the gatekeeping role of the military judge with respect to expert testimony offered pursuant to M.R.E. 702. *Billings*, 61 M.J. at 167.

In *Daubert*, the Supreme Court identified four factors that a judge *may* use to determine the reliability of expert testimony. Those four factors are: (1) whether a theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer re-

view and publication; (3) the known or potential rate of error in using a particular scientific technique and the standards controlling the technique's operation; and (4) whether the theory or technique has been generally accepted in the particular scientific field. *Daubert*, 509 U.S. at 593-94.

This Court has often cited the *Daubert* factors, along with those in *Houser*, 36 M.J. at 398-99, as firm ground upon which a military judge may base a decision. But while satisfying every *Daubert* or *Houser* factor is sufficient, it is not necessary. As *Daubert* itself states, the test of reliability is "flexible," and the factors do not constitute a "definitive checklist or test." *Daubert*, 509 U.S. at 593-94. The focus is on the *objective* of the gatekeeping requirement, which is to ensure that the expert, "whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co.*, 526 U.S. at 152.

The inquiry is "a flexible one," *Daubert*, 509 U.S. at 594, and "the gatekeeping inquiry must be tied to the facts of a particular case." *Kumho Tire Co.*, 526 U.S. at 150 (citation and quotation marks omitted). The trial judge "must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable." *Id.* at 152. Consequently, the trial judge has "the same kind of latitude in deciding *how* to test an expert's reliability . . . as it enjoys when it decides *whether* that expert's relevant testimony is reliable." *Id.* at 152.[3]

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[3] The dissent, while citing *Daubert* and *Kumho Tire Co.*, gives neither latitude nor leeway to the military judge. Moreover, it gives no credence to the methodology of a medical expert, de-

The focus of the military judge's inquiry into reliability is on the principles and methodology employed by the expert, without regard to the conclusions reached thereby. *Daubert*, 509 U.S. at 595. At a minimum, the military judge is required under M.R.E. 702 to determine whether the conclusion *could* reliably follow from the facts known to the expert and the methodology used, mindful that "conclusions and methodology are not entirely distinct from one another. Trained experts commonly extrapolate from existing data." *Joiner*, 522 U.S. at 146. Whether attempting to determine if there is "too great an analytical gap between the data and the opinion proffered," *id.*, or whether the proffered testimony falls "outside the range where experts might reasonably differ," *Kumho Tire Co.*, 526 U.S. at 153, the goal is to ensure that expert testimony or evidence admitted is relevant and reliable, as well as to shield the panel from junk science.

C.

Turning to this case, we begin with the observation that the military judge understood and applied the correct law in deciding whether to admit Dr. Kellogg's testimony. At the outset of her ruling, the military judge correctly summarized the standard for the admission of expert testimony, specifically stating the requirements under M.R.E. 702 and *Daubert*. While this Court's case in *Houser*, 36 M.J. at 397-99, was not explicitly mentioned, the military judge did analyze the qualifications of Dr. Kellogg, the subject matter of the expert testi-

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spite her unquestioned experience, application of the same diagnostic methodology in this case as she used in daily practice, and unrebutted evidence that she had given expert testimony based on the same methodology in approximately 600 other cases.

mony, the basis for the testimony, and the legal relevance of the testimony in compliance with the *Houser* framework. The military judge specifically addressed the relevance and reliability aspects of the gatekeeping function as developed under the precedents of this Court and the Supreme Court.

While *Houser* sets forth the correct framework for analysis of *Daubert* issues, in this case only the fifth *Houser* factor -- the reliability of the evidence -- is in dispute. Consequently, the question for this Court is only whether the military judge abused her discretion in determining that Dr. Kellogg's conclusion that JA was concerning for sexual abuse was reliable. We conclude she did not.

The military judge's ruling properly evaluated the methodology employed by Dr. Kellogg in determining that JA was concerning for sexual abuse. The military judge's findings are supported by Dr. Kellogg's testimony about her physical examination of JA, the laboratory test results, her review of JA's medical history, her consultation with a professional colleague, and her discussion with JA in the course of the exam. She testified that it is standard practice in her field to look at all of these factors together: "the diagnosis in medicine is made on the basis of a constellation of findings." That evidence is unrebutted. Moreover, Appellant submitted a study as part of his motion in limine,[4] which contains a classification system for the "overall assessment of likelihood of abuse," that rests on an amalgam of physical, laboratory, and medical history findings.

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[4] The study was *Evolution of a Classification Scale: Medical Evaluation of Suspected Child Sexual Abuse*, by Joyce A. Adams. The defense referred to Ms. Adams as an expert.

Further, the military judge properly reviewed and personally questioned Dr. Kellogg as to her years of experience, her publications, her usual methodology, prior expert testimony relying on the same methodology, and her knowledge of other experts' work in the field of child sexual abuse. *See Kumho Tire Co.*, 526 U.S. at 150 (reasoning that "the expert's particular expertise" is an indicia of reliability).

Finally, Dr. Kellogg's testimony established that the methodology she employed with JA was the same methodology she used in her examination of more than 6,000 patients. Dr. Kellogg also confirmed to the military judge that she had been qualified as an expert and been allowed to provide expert testimony on whether a patient was concerning for sexual abuse based on the methodology she used in this case, in reliance on the same universe of facts, approximately 600 times.[5] On these un-

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[5] The military judge specifically probed this area in her questions to Dr. Kellogg:

> Q. Okay. And have you been recognized as an expert in each of those 600 [cases]?
>
> A. Yes I have.
>
> Q. And have you been allowed to testify in the past that your findings were "concerning" for child sexual abuse?
>
> A. Yes I have.
>
> Q. As the form of your opinion in that exact manner?
>
> A. Yes, ma'am.
>
> Q. About how many times?

disputed facts, we do not think it unreasonable for the military judge to have found Dr. Kellogg's methodology reliable.

Appellant does not so much challenge the overall methodology employed by Dr. Kellogg, however, as he does question the analytic connection between the physical findings from Dr. Kellogg's examination of JA and her testimony that those findings supported the opinion that JA was concerning for sexual abuse. But Appellant's challenge is rooted in a fundamental misapprehension of Dr. Kellogg's methodology. Dr. Kellogg did not identify any single physical finding as a litmus test for sexual abuse. Instead it was her "constellation of findings" that was the basis for her expert opinion. *See United States v. Traum*, 60 M.J. 226, 236 (C.A.A.F. 2004) (approving an expert doctor's use of all facts available in reaching a medical opinion).[6]

> A. "Concerning" specifically? Is that what you're saying?
>
> Q. Yes. Concerning that type of an opinion, that "X," "Y," and "Z" findings were "concerning" or "consistent" with child sexual abuse.
>
> A. Based on exam alone or everything?
>
> Q. Based on everything.
>
> A. Based on everything. I have probably -- I would say about 90 percent of my actual testimony has been to that effect that the findings, the history and/or exam, was consistent with possible child abuse.

[6] The dissent's reliance on *In re "Agent Orange" Prod. Liab. Litig.*, 611 F. Supp. 1223 (E.D.N.Y. 1985), for a contrary view is unwarranted. That case, of course, is a pre-*Daubert* case, a mass tort case, and does not address the admissibility of expert testimony. Moreover, Chief Judge Weinstein based his

We observe that this case is not one where Appellant asserts that Dr. Kellogg was deficient because she failed to perform other relevant medical tests that would either bolster or refute her medical opinion. Appellant's challenge is more narrow and focused. In Appellant's view, the hymenal thickening and anal dilation findings are unreliable because they fail to satisfy the *Daubert* factors.

We reject this assertion for three reasons. First, Dr. Kellogg testified to both hymenal thickening and anal dilation as objective medical and physical findings at the sites of the alleged sexual abuse. Moreover, she described how factors, such as age, and other physical conditions, might cause these findings. Those factors were ruled out before she considered the findings relevant to possible sexual abuse. Second, defense counsel provided an expert study at trial that specifically included these findings, placing the use of anal dilation and hymenal thickening in the realm of findings where reasonable experts might disagree. Third, the military judge clearly understood the *Daubert* factors, the manner in which the hymenal and anal dilation findings did not conform to those factors, and nonetheless found the evidence reliable.

We cannot say that it was manifestly erroneous for the military judge to find that the evidence relating to hymenal thickening and anal dilation was reliable. Nothing in the precedents of the Supreme Court or this Court requires that a military judge either exclude or admit

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ruling in part on the fact that the experts in that case had *not examined the victims*. *Id.* at 1235. *In re Agent Orange* does not stand for the proposition that a medical doctor, basing her opinion on a constellation of observed anogenital findings in a six-year-old girl (after ruling out other explanations for the findings), laboratory results, and medical history findings, is providing an opinion that is either subjective or speculative.

expert testimony because it is based in part on an interpretation of facts for which there is no known error rate or where experts in the field differ in whether to give, and if so how much, weight to a particular fact in deriving an opinion. *See United States v. Norris*, 217 F.3d 262, 269-71 (5th Cir. 2000) (holding testimony admissible under *Daubert* even though "no error rate was known" and "no independent validation" of the expert's testing had occurred); *McReynolds v. Sodexho Marriott Servs., Inc.*, 349 F. Supp. 2d 30, 34 (D.D.C. 2004) (holding testimony admissible under *Daubert* although experts "might well differ . . . over various details of their analyses"). "Such a bright-line requirement would be at odds with the liberal admissibility standards of the federal [and military] rules and the express teachings of *Daubert*." *Amorgianos v. Amtrak*, 303 F.3d 256, 267 (2d Cir. 2002). *Daubert* expressly recognizes that the adversary system, including "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." 509 U.S. at 596.

As the military judge recognized, and as the testimony of Dr. Kellogg and the two exhibits submitted by the defense at the motion supported, different experts in the field of child sexual abuse give different weight to anogenital findings, and some discount certain types of anogenital findings altogether. One expert study provided by the defense lists both a thickened hymen and anal dilation as factors in assessing child sexual abuse. Another expert study provided by the defense would not rely on anal dilation as a factor in assessing child sexual abuse. Given these facts, it does not appear that the analytic gap between these physical findings and Dr. Kellogg's conclusion that they supported her diagnosis that JA was concerning for sexual abuse was too great, or

that Dr. Kellogg's testimony on these points "fell outside the range where experts might reasonably differ." *Kumho Tire Co.*, 526 U.S. at 153 (citing *Daubert*, 509 U.S. at 596).

Nor was the military judge's admission of Dr. Kellogg's consideration of the increased white blood cells in JA's vagina unreasonable, given the diagnostic approach taken by Dr. Kellogg. This finding is different than the others, not qualitatively, but because there was no explicit reference to JA's increased white blood cells in the military judge's ruling, and, unlike the other anogenital findings, this factor is not itself mentioned in any of the articles written by experts presented at the motion hearing.

Nonetheless, we conclude that it was not manifestly erroneous for the military judge to admit this testimony. The military judge ruled that Dr. Kellogg's "role [was] to assist [the panel] in understanding the physical examination" and therefore permitted her to address "any physical manifestations" of sexual abuse. The evidence in the record supports this ruling by the military judge.

Dr. Kellogg described why she thought the increased white blood count was an "unusual" and concerning finding. She explained that it was unusual because young children do not have an increased white blood cell count except under a few specific circumstances, which she ruled out. She further explained that "the hymen acts as a protective shield in normal children," and that a larger than normal hymenal opening could lead to irritation and increased white blood cells in the vagina. She elaborated on this point, testifying that "we sometimes see [it] in victims of sexual abuse." She therefore concluded that the increased white blood cell count, in conjunction with the patient history and other findings, was concerning

for sexual abuse because she had ruled out infection, JA's hymen did not cover her vaginal opening, and a girl of JA's age does not normally have increased white blood cells in her vagina.

We observe there was some conflict in Dr. Kellogg's expert testimony as to the exact size of a hymenal opening that is clinically significant. In her Article 39(a), UCMJ, testimony, Dr. Kellogg states that JA's hymen is abnormally short because it covers only 2.5 millimeters of the opening. At another point in her Article 39(a), UCMJ, testimony she states that the hymen only covers one-eighth to one-tenth of the opening when it should cover one-third. On cross-examination defense counsel pointed out that Dr. Kellogg had previously stated that a normal range for this particular measurement could be between one and four millimeters, and because JA's hymenal rim measured 2.5 millimeters it fell within what could be considered normal range. These statements were not harmonized during the Article 39(a), UCMJ, testimony.

Notwithstanding this point, we do not consider any slight flaw with regard to this single finding so significant as to undermine the otherwise proper reliability determination of the military judge. *See Amorgianos*, 303 F.3d at 267 ("The judge should only exclude the evidence if the flaw is large enough that the expert lacks 'good grounds' for his or her conclusions."); *Roane v. Greenwich Swim Comm.*, 330 F. Supp. 2d 306, 317 (S.D.N.Y. 2004) (quoting *In re Paoli*, 35 F.3d 717, 746 (3d Cir. 1994)) ("Minor flaws in an expert analysis or slight modifications of otherwise reliable methods will not render an expert opinion per se inadmissible.").

In light of Dr. Kellogg's testimony, and in the context of other anogenital medical findings, it was reasonable

for the military judge to admit testimony on JA's increased white blood count. *See Daubert*, 509 U.S. at 593-94. "Trained experts commonly extrapolate from existing data." *Joiner*, 522 U.S. at 146. We do, however, have serious reservations regarding whether this individual finding would have been admissible without being presented in the context of the other medical findings in this case.

Given the standard of review in this case, we cannot say that the military judge abused her discretion. It was not manifestly erroneous for the military judge to leave this admissible but, in Appellant's view, shaky evidence to the adversarial process. *Daubert*, 509 U.S. at 596. It is the members who "must decide among the conflicting views of different experts, even though the evidence is 'shaky.'" *Kumho Tire Co.*, 526 U.S. at 142 (citing *Daubert*, 509 U.S. at 596).

III. Conclusion

In summary, the linchpin of this case is Dr. Kellogg's reliance on a "constellation of findings" generated from a reliable methodology as the basis of her expert opinion. We conclude that the military judge properly performed her "gatekeeping" duty established in *Daubert*. 509 U.S. at 593-94. The decision of the United States Army Court of Criminal Appeals is affirmed.

DISSENT BY: EFFRON

DISSENT

EFFRON, Chief Judge (dissenting):

The majority opinion concludes that the military judge did not err in determining that Dr. Kellogg based her testimony on a reliable methodology under *Daubert*

v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993). For the reasons set forth below, I respectfully dissent.

I. ADMISSIBILITY OF SCIENTIFIC EVIDENCE UNDER *DAUBERT*

In *Daubert*, the Supreme Court placed ultimate responsibility on the trial judge to ensure that scientific evidence is reliable by critically examining the methodology from which the expert's conclusions are derived. *Id.* at 588, 592-93. The Court stated that:

> in order to qualify as "scientific knowledge," an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation -- i.e., "good grounds," based on what is known. In short, the requirement that an expert's testimony pertain to "scientific knowledge" establishes a standard of evidentiary reliability.

Id. at 590. The Court reasoned that the trial judge's inquiry must be "a flexible one [whose] overarching subject is the scientific validity -- and thus the evidentiary relevance and reliability -- of the principles that underlie a proposed submission." *Id.* at 594-95 (footnote omitted).

Under *Daubert*, the trial judge must make "a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." *Id.* at 592-93. The Court provided a nonexclusive list of factors that may be used for assessing reliability, including: (1) whether the theory or technique can be or has been tested through

use of scientific methodology; (2) whether the theory or technique has been subject to peer review and publication; (3) the known or potential rate of error; (4) the existence and maintenance of standards and controls; and (5) whether the theory or technique has been generally accepted in the expert community. *Id.* at 593-94.

In crafting the *Daubert* test, the Court rejected the previous standard, which asked only whether a scientific theory enjoyed "general acceptance" in the relevant professional community. *Id.* at 588; *see Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923). Although *Daubert* includes a broader range of scientific or technical evidence than the *Frye* general acceptance test, it is more restrictive than *Frye* because it requires a determination of whether that evidence is reliable even if it meets a general acceptance test. *See* Edward J. Imwinkelried et al., 1 *Courtroom Criminal Evidence* 222-24 (4th ed. 2005).

The *Daubert* reliability assessment must be narrowly tailored to the precise issue before the court. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999) (citing *Daubert*, 509 U.S. at 597). Evidence of an expert's qualifications and general approach is not sufficient to establish the reliability of a particular technique used by the expert to analyze data and draw conclusions. *Id.* at 153-54. The specific theory or technique that is the subject of expert testimony must be sufficiently reliable to perform the "task at hand." *Daubert*, 509 U.S. at 597; *Kumho Tire*, 526 U.S. at 153-54; *see also Weisgram v. Marley Co.*, 528 U.S 440, 455, 120 S. Ct. 1011, 145 L. Ed. 2d 958 (2000) (opining that "[s]ince *Daubert* . . . parties relying on expert evidence have had notice of the exacting standards of reliability such evidence must meet").

The scientific methodology required by *Daubert* and its progeny is embodied in Military Rule of Evidence (M.R.E.) 702, which provides:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

See Daubert, 509 U.S. at 589-90; Fed. R. Evid. 702. As noted by the drafters of the parallel Federal Rule of Evidence, "[t]he more subjective and controversial the expert's inquiry, the more likely the testimony should be excluded as unreliable." Fed. R. Evid. 702, Notes of Advisory Committee on 2000 Amendments.

II. ADMISSION OF DR. KELLOGG'S TESTIMONY

At the time of Appellant's court-martial, Dr. Nancy Kellogg was a physician and the director of the Alamo Children's Advocacy Center. Doctors at the Children's Advocacy Center examined all children referred by the local hospital as potential victims of sexual abuse. Dr. Kellogg estimated that she has examined approximately 6,000 children referred for this reason as well as approximately 2,000 children referred for other conditions. The Government moved to permit Dr. Kellogg to testify as an expert witness in the field of child sexual abuse re-

garding the conclusions she derived from her physical examination of JA, the victim in this case.

In a hearing on the motion under Article 39(a), Uniform Code of Military Justice (UCMJ), 10 U.S.C. § 839(a) (2000), Dr. Kellogg explained that she would testify about three physical findings that led her to conclude JA was "concerning" for sexual abuse: (1) hymenal measurement; (2) anal dilation; and (3) vaginal white blood cell count. Dr. Kellogg defined "concerning" for sexual abuse as "a finding or a group of findings that I cannot readily explain as being normal or [attributed] to a condition other than sexual abuse. . . . they're concerning in the sense that they signify possible trauma to the genitals"; however, "it could also be attributed to a nontraumatic event." Additionally, Dr. Kellogg explained that the most important factor in her assessment is a patient's history, or account of abuse, especially if it remains consistent over time.

Trial defense counsel opposed admission of Dr. Kellogg's testimony, contesting the reliability of her methodology under M.R.E. 702 and *Daubert*. Specifically, trial defense counsel challenged reliability under three of the *Daubert* factors: the failure to calculate an error rate for these studies, the absence of direct peer review and publication, and the lack of general acceptance of Dr. Kellogg's standards. The defense argued that Dr. Kellogg's experience at the sexual abuse clinic had not been subjected to "any statistical analysis, any verification, nor has she gone out into the community to determine the extent of these concerning findings in normal children."

The military judge granted the prosecution's motion to admit Dr. Kellogg's testimony, concluding that her methodology was reliable under M.R.E. 702 and *Daubert*. The military judge determined that Dr. Kellogg's find-

ings were based on sufficient facts or data under M.R.E. 702(1) because "[e]ven if there is a disagreement on matters within this area of expertise, Dr. Kellogg herself still has a basis of her own 6,000 examinations to fall back upon . . . ." With respect to the *Daubert* factors, the military judge stated that: (1) although Dr. Kellogg's methods were not universally accepted, lack of general acceptance is not a bar to admissibility; (2) Dr. Kellogg's factors "have been subject to peer review and publication; apparently, hotly so. But that is still peer review and publication"; and (3) "while there can be no known error rate because of the lack of a normative population, that at least to some extent the use of measurements and more than one measurement is accepted in that field."

III. DISCUSSION

"When expert testimony's factual basis, data, principles, methods, or their application are called sufficiently into question, . . . the trial judge must determine whether the testimony has a reliable basis in the knowledge and experience of [the relevant] discipline." *United States v. Billings*, 61 M.J. 163, 168 (C.A.A.F. 2005) (quoting *Kumho Tire*, 526 U.S. at 149) (quotation marks omitted). In the present case, the military judge referred to the *Daubert* factors but failed to either properly apply these factors or employ adequate alternative factors to assess the reliability of Dr. Kellogg's methodology.

Dr. Kellogg stated that she had testified previously in approximately 600 cases "on numerous subjects" involving a variety of matters related to child sexual abuse. However, the record does not identify which methodologies were at issue in those cases -- which Dr. Kellogg said involved issues such as patterns of child disclosure and conditions confused with sexual abuse; nor does the record indicate that the methodology at issue in the pre-

sent case -- *see* Part II *supra* (reliance on hymenal measurement, anal dilation, and vaginal white blood cell count) -- was litigated and determined to be reliable under *Daubert* in the prior cases. Assuming that her prior testimony "on numerous subjects" was sufficient to qualify her as an expert, it was not sufficient to establish the reliability of the specific methodology used to support her testimony in the present case. *See Kumho Tire*, 526 U.S. at 153; Margaret A. Berger, *The Supreme Court's Trilogy on the Admissibility of Expert Testimony* in *Reference Manual on Scientific Evidence* 9, 34-35 (Federal Judicial Center, 2d ed. 2000) [hereinafter *Admissibility of Expert Testimony*].

The military judge was required to examine the specific issue of whether Dr. Kellogg's methodology supported her conclusion that JA was "concerning" for child sexual abuse. *Kumho Tire*, 526 U.S. at 154-55. In that regard, the military judge was required to ensure that the methodology not only enabled the expert to ascertain the existence of a physical condition, but also enabled the expert to testify as to the causation of that condition. *See, e.g.*, Berger, *Admissibility of Expert Testimony* at 34-35; Edward Imwinkelried, *Forensic Science: The Relativity of Reliability*, 40, No. 4 Crim. L. Bull. 386 (2004). Assuming that Dr. Kellogg's testimony would have been admissible, based on her clinical experience, to describe JA's physical characteristics, Dr. Kellogg went beyond that scope to draw conclusions about the causation of those characteristics -- that they were "concerning" for sexual abuse. *See* Berger, *Admissibility of Expert Testimony* at 34-35. The military judge failed to ascertain whether Dr. Kellogg's methodology reliably supported this precise conclusion. *Kumho Tire*, 526 U.S. at 154-55.

As the majority opinion notes, Dr. Kellogg made "objective medical and physical findings at the sites of the

alleged abuse." The conclusions Dr. Kellogg derived from her physical findings, however, were subjective. Dr. Kellogg did not tabulate or verify her data and could not correlate the findings to a concrete likelihood of abuse. Dr. Kellogg's observations were based primarily on her experience as a clinician, which in the absence of her own or other empirical support does not qualify such observations as evidence "derived by the scientific method." *Daubert*, 509 U.S. at 590. As noted in David L. Faigman et al., 1 *Modern Scientific Evidence: The Law and Science of Expert Testimony* 182 (2006-2007 ed.) [hereinafter *Modern Scientific Evidence*]:

> For scientists, the key word in the phrase "scientific method" is *method* . . .
>
> [C]laims [that do not utilize the scientific method] are likely to be defended by statements that the truth of the assertion rests on "my many years of experience," . . . . [but w]ere the findings based on evidence produced by the scientific method, the expert should be able to present those studies to any audience, including a court, along with the methodology and the results of the studies.

Dr. Kellogg's conclusions constituted "merely an hypothesis," not the product of a reliable scientific method. *Whiting v. Boston Edison Co.*, 891 F. Supp. 12, 25 (D. Mass. 1995) (finding a methodology unreliable when it could not be tested, was rejected by scientists in peer-reviewed journals, and had no known or potential rate of error).

Dr. Kellogg considered findings to be "concerning" for abuse when there was no other readily attributable cause for "possible trauma." Dr. Kellogg also explained

that the most important factor in her appraisal is the patient's verbal account of abuse. Dr. Kellogg's hypothesis appears to be as follows: if the child is telling the truth, and there is no other readily apparent cause for the findings of "possible trauma," then the findings are "concerning" for sexual abuse, meaning only that the possibility of sexual abuse cannot be ruled out. This is the same type of ungrounded testimony Chief Judge Weinstein rejected in *In re "Agent Orange" Prod. Liab. Litig.*, 611 F. Supp. 1223, 1238-39, 1250-51 (E.D.N.Y. 1985). *Agent Orange* foreshadowed *Daubert* in its critique of the *Frye* standard and emphasis on reliability of the expert's methodology. *Daubert*, 509 U.S. at 586 n.4 (citing Michael D. Green, *Legal Theory: Expert Witnesses and Sufficiency of Evidence in Toxic Substances Litigation: The Legacy of Agent Orange and Bendectin Litigation*, 86 Nw. U. L. Rev. 643 (1992)).

In that case, the court barred proposed expert testimony that was based on the following hypothesis: if the plaintiffs accurately reported symptoms, and if there was no evidence of other causes, then exposure to the Agent Orange chemical was "more likely than not" the proximate cause of the plaintiffs' symptoms. *In re Agent Orange*, 611 F. Supp. at 1237-38. In rejecting the proposed testimony, the court found that it was "speculative," "so guarded as to be worthless," and lacked "any foundation in fact." *Id.* at 1238.

The military judge's assessment of Dr. Kellogg's methodology is similar to the assessment rejected by the United States Court of Appeals for the Fifth Circuit in *Black v. Food Lion, Inc.*, 171 F.3d 308 (5th Cir. 1999). The plaintiff in *Black* alleged that she developed fibromyalgia as a result of falling in defendant's grocery store. *Id.* at 309-10. The trial judge admitted the plaintiff's diagnosing physician as an expert witness on the

issue of causation. *Id.* The physician's methodology consisted of: taking a patient history; diagnosing fibromyalgia; attempting to eliminate other causes; and concluding that the fall was the only possible remaining cause of the disease. *Id.* at 313.

In rejecting this testimony as unreliable scientific evidence, the Fifth Circuit stated that the *Daubert* inquiry required that the expert's specific conclusion -- that the fall could have caused the plaintiff's condition -- must be the product of a reliable methodology. *Id.* at 311. The court determined this methodology was unreliable under *Daubert* because it had not been tested or peer reviewed, lacked a rate of error, and was not generally accepted in the medical community. *Id.* 313-14. Although the expert followed the "approved protocol for determining fibromyalgia," a methodology used in medical practice, it did not constitute reliable scientific evidence. *See* Berger, *Admissibility of Expert Testimony* at 34-35 (citing *Black*, 171 F.3d at 313). The Fifth Circuit determined that the trial judge, in admitting the expert testimony, "fatally erred by applying [*Daubert*'s] criteria at a standard of meaninglessly high generality rather than boring in on the precise state of scientific knowledge in this case." *Black*, 171 F.3d at 314.

The military judge in Appellant's case committed a similar error. Assuming that Dr. Kellogg's methodology may be used in clinical practice, such use is not sufficient to establish reliability under *Daubert* and its progeny. *See* Berger, *Admissibility of Expert Testimony* at 34-35.

Examination of the *Daubert* factors identified by the military judge -- error rate, peer review and publication, and general acceptance -- further underscores the unreliability of Dr. Kellogg's findings.

A. Error Rate

Dr. Kellogg's methodology for assessing physical findings did not utilize the scientific method. Dr. Kellogg did not offer any support from the scientific community for the validity of her observations or the conclusions she drew from them. Despite her recognition that other studies have employed scientific research principles in this area, Dr. Kellogg did not record measurements, tabulate data, or otherwise conduct formal studies with her examination results. Although Dr. Kellogg examined approximately 2,000 children who were not referred for possible sexual abuse, she did not attempt to study them as a control group and record the findings. Further, Dr. Kellogg did not test her conclusion that the findings introduced into evidence were "concerning" for sexual abuse in a blind case study. That is, she did not compare examination results of abused versus non-abused children, nor did she research the prevalence of abused children who did not present physical evidence of abuse versus those who did.

Dr. Kellogg maintained that there could be no measurable rate of error for the predictive value of her findings due to a lack of a normative population of non-abused children despite recognizing that "numerous studies" have calculated error rates for factors that may be indicative of child sexual abuse. The military judge improperly relied on Dr. Kellogg's claim that child sexual abuse is so rampant and hidden that no normative population could be identified in light of her acknowledgment that such studies are regularly conducted. *See, e.g.*, John McCann et al., *Perianal Findings in Prepubertal Children Selected for Nonabuse: A Descriptive Study*, 13 Child Abuse & Neglect 179 (1989) [hereinafter *Perianal Findings in Prepubertal Children*].

Even if Dr. Kellogg's findings were potentially useful for treatment purposes in her clinic, they were not sufficiently reliable to be admitted in a court of law. *See* Faigman, 1 *Modern Scientific Evidence* at 182. Her assessments of what constitutes trauma and when trauma is "concerning" for abuse have not been empirically verified and therefore do not evoke sufficient guarantees of reliability to be admitted as expert testimony before a court-martial panel.

B. Peer Review and Publication

The military judge found that Dr. Kellogg's methods "have been subject to peer review and publication; apparently, hotly so. But that is still peer review and publication." However, the peer review and publication factor "does not necessarily correlate with reliability." *Daubert*, 509 U.S. at 593; Faigman, 1 *Modern Scientific Evidence* at 60. Rather, the value of peer review lies in the likelihood that other experts will detect flaws in and refine the methodology. *Daubert*, 509 U.S. at 593. "The courts, no less than the scientific community, should be concerned not with the mere formal act of submission to the scrutiny of the scientific community, but with what the community concluded following such scrutiny." Faigman, 1 *Modern Scientific Evidence* at 60.

Dr. Kellogg did not refer to any peer-reviewed article or scientific study that supported her findings. A study cited by the defense directly contradicted her finding that the hymenal rim measurements are significant. Joyce A. Adams, *Evolution of a Classification Scale: Medical Evaluation of Suspected Child Sexual Abuse*, 6 Child Maltreatment 31, 33 (2001) [hereinafter *Evolution of a Classification Scale*] (stating that "[t]here are currently no published research studies that show that a smooth but narrow posterior rim of hymen, or an

enlarged hymenal opening diameter, or any combination of findings, are any more common in abused than in nonabused children"). The pertinent studies in the record, which were submitted by the defense, underscore the absence of a scientific basis for Dr. Kellogg's views regarding the significance of focal hymenal thickness or a high vaginal white blood cell count as "concerning" for sexual abuse. Joyce A. Adams et. al., *A Proposed System for the Classification of Anogenital Findings in Children with Suspected Sexual Abuse*, 5 Adolescent Pediatric Gynecology 73 (1992); Adams, *Evolution of a Classification Scale* at 31; McCann, *Perianal Findings in Prepubertal Children* at 179.

C. Support in the Scientific Community

The record demonstrates that the three factors Dr. Kellogg identified as "concerning" for sexual abuse have attracted little support in the scientific community. Dr. Kellogg cited the thickening of JA's hymen in only a localized area as the reason for classifying the hymen as "concerning," but she acknowledged that there is no data to support her theory that focal hymenal thickening is "concerning" for sexual abuse. Likewise, Dr. Kellogg was aware of only one study that measured anal dilation, and there is no evidence as to how many physicians employ the method and with what criteria, as its use is "very controversial" in the field. Third, Dr. Kellogg testified that JA's white blood cell count was "concerning" for abuse due to the finding of lack of adequate hymenal tissue. The high white blood cell count had no independent significance -- it was "concerning" for abuse only if the hymenal findings were the reliable product of a proven methodology, which Dr. Kellogg acknowledged was not the case. Lastly, the patient's consistent history, or account of abuse over time, to which Dr. Kellogg gave the

greatest weight in making her assessment, is simply not scientific evidence. It is the victim's account of what occurred, and in this case, it was clinically unverifiable.

Dr. Kellogg's testimony was admitted to clarify medical evidence for the panel. M.R.E. 702. In this context, the military judge should have ensured that a reliable scientific methodology supported Dr. Kellogg's conclusions. *Daubert*, 509 U.S. at 591-92 (reasoning that Fed. R. Evid. 702 "requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility"); *Billings*, 61 M.J. at 168. Instead, Dr. Kellogg's findings were based on unverified hypotheses. Even though Dr. Kellogg conducted thousands of examinations for "objective medical and physical findings," she did not use a reliable scientific methodology to evaluate those findings.

IV. CONCLUSION

In the present case, the military judge was required to determine "whether the expert's theory can be challenged in some objective sense, or whether it is instead simply a subjective, conclusory approach that cannot reasonably be assessed for reliability." Fed. R. Evid. 702, Notes of Advisory Committee on 2000 Amendments. Here, the military judge did not recognize that there was no independent scientific support for Dr. Kellogg's findings and Dr. Kellogg had failed to test her observations through a reliable scientific method. Accordingly, I would conclude that the military judge abused her discretion in admitting Dr. Kellogg's testimony. *See Billings*, 61 M.J. at 167-68.

APPENDIX B

IN THE CASE OF
UNITED STATES, Appellee

V.

Staff Sergeant
Luis D. SANCHEZ
U.S. Army, Appellant

ARMY 20010943

UNITED STATES ARMY
COURT OF CRIMINAL APPEALS

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12 April 2006

UNPUBLISHED OPINION

Per Curiam:

On consideration of the entire record, we hold the findings of guilty and the sentence as approved by the convening authority correct in law and fact. Accordingly, those findings of guilty and the sentence are AFFIRMED.

FOR THE COURT:
s/ Mary B. Chapman
MARY B. CHAPMAN
Deputy Clerk of Court

APPENDIX C

TRANSCRIPT OF THE MILITARY JUDGE'S RULING

Military Judge:

Okay. Thank you. Thank you very much. Now, I had the briefs long before the trial date and the information which I thank Counsel for because it greatly assisted me in focusing on this issue regarding Dr. Kellogg.

I'm going to deny the defense motion in limine. It became obvious to me as well that, during the testimony, that the issue does boil down to the *Daubert* standard on reliability because as a preliminary matter, let me state that I found that Dr. Kellogg is qualified to testify as an expert in the area of child sexual abuse. I find that in Military Rule of Evidence 702, her testimony would assist the triers of fact.

The members, in a case like this, will want to know whether there were any physical manifestations. They cannot hear just the cold, hard facts of an examination and understand those. It needs to be placed into context for them as to what the physical examinations means. And that would be Dr. Kellogg's role to assist them in understanding the physical examination and to place that into perspective and the context of the charges and the specifications.

I do find that Dr. Kellogg's opinion has a sufficient factual basis. Even if there is a disagreement on matters within this area of expertise, Dr. Kellogg herself still has a basis of her own 6,000 examinations to fall back upon in addition to the materials of the other experts with which she demonstrated great familiarity, obviously has

used those to either discount those or to accept those within her own practice in reviewing the results of her examinations and also use them to come to conclusions in her own examinations.

I'm impressed that she stated that she has a [sic] not more than 50 percent confirmation rate of those who have been sent to her for examination from Santa Rose Center which means she is not merely a rubber stamp or a shill for finding that there was child sexual abuse. She's also well aware of other physical manifestations which have been mistaken over the years for child sexual abuse and applies those.

The issue then becomes whether her methods and the conditions that she uses are, in fact, reliable. Even though I asked her about a general acceptance within the community, the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals*, as one of its basic premises, held that there was nothing, within the Federal Rule of Evidence 702 that required general acceptance as a precondition for the admissibility of scientific evidence. The Supreme Court's tests which exist to this day in military cases and other Supreme Court cases is whether or not the expert's opinion rests on a reliable basis and whether it is relevant.

I find that, through Dr. Kellogg's testimony, that these results have been subject to peer review and publication; apparently, hotly so. But that still is peer review and publication. That while there can be no known error rate because of the lack of a normative population, that at least to some extent the use of measurements and more than one measurement is accepted in that field. And the meaning to be given to specific measurements goes more to the weight of the opinion than the funda-

mental basis of the opinion itself. But I still find that it would be helpful to the members.

So for those reasons I find that the *Daubert* standard has been met with this testimony; and further applying the Military Rule of Evidence 403 balance, I find specifically that all of these factors that I have outlined to make my finding here also support a determination that the probative value of this evidence is not substantially outweighed by its possible prejudicial effect and that cross-examination by the defense in this case will guarantee further the reliability of this evidence and the members understanding of it.

Therefore, the government may call Dr. Nancy Kellogg as a witness in this case, and she may testify in accordance with her expertly obtained opinion.